



HEALTH AFFAIRS

THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301-1200

JUL 28 2005

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (M&RA)
ASSISTANT SECRETARY OF THE NAVY (M&RA)
ASSISTANT SECRETARY OF THE AIR FORCE (SAF/MR)

SUBJECT: Operation Iraqi Freedom Depleted Uranium Bioassay Results and Semi-Annual Data Submission

REFERENCE: Health Affairs Memorandum, "Operation Iraqi Freedom Depleted Uranium Bioassay Results and Semi-Annual Data Submission," September 10, 2004

My memorandum, "Operation Iraqi Freedom Depleted Uranium Bioassay Results and Semi-Annual Data Submission," February 14, 2005, requested the semi-annual submission of the Services' Operation Iraqi Freedom (OIF)-related Depleted Uranium (DU) bioassays results. The ongoing identification, evaluation, and clinical management of OIF personnel who possibly have been exposed to DU are important to their well-being. The attachments summarize the data for the third reporting period, October 1, 2004, through March 31, 2005, and the Services' DU urine bioassay results from June 1, 2003. The next semi-annual submittal from the Services will include results through September 30, 2005, and is due November 1, 2005.

As of March 31, 2005, a total of 1,970 U.S. personnel had undergone a DU bioassay. No one had total uranium levels or DU levels that caused or are expected to cause adverse health effects. Total urine uranium levels of 136 Service members were above 50 ng/gram urine creatinine, the 95th percentile of the normal dietary uranium level of the U.S. civilian population. Seven had indications of DU in their urine, six of whom either had DU fragments removed or were suspected to have had retained DU fragments at the time of testing. Urine bioassay results for the seventh Service member are not yet confirmed.

The level of exposure for 272 Army and 10 Navy/Marine could not be determined because of incomplete or missing DU exposure assessment forms. I request the Army and Navy continue their efforts to obtain completed exposure assessment forms for all of the uncategorized Service members and to obtain confirmatory samples as required under the bioassay program. Please report on your progress in the next semiannual progress report due November 1, 2005.

Detailed information and clinical guidance on this topic is available on the Department of Defense Deployment Health Clinical Center Web site www.pdhealth.mil.

My point of contact for this action is Craig Postlewaite, (703) 578-8513, or Craig.Postlewaite@deploymenthealth.osd.mil.



William Winkenwerder, Jr., MD

Attachments:

As stated

cc:

Assistant Secretary of Defense (Reserve Affairs)
Surgeon General of the Army
Surgeon General of the Navy
Surgeon General of the Air Force
Director, Joint Staff
Assistant Deputy Under Secretary of Defense (ESOH)
Director, Health and Safety, USCG
Director, DoD Deployment Health Clinical Center
Under Secretary for Health, Department of Veterans Affairs
Baltimore VA Medical Center (Dr. Melissa McDiarmid)

Service Summary Operation Iraqi Freedom Depleted Uranium (DU) Bioassay Results
Third Semi-Annual Report
October 1, 2004 – March 31, 2005

Level	Army	Navy/ Marines	Air Force³	Total	Elevated Total Uranium	Detectable DU	Retained Fragments or Fragment- Type Injury
I	16	3	1	20	2 ⁴	1	5
II	17	5	3	25	0	0	0
III	18	14	4	36	0	0	0
Uncat¹	272	10 ²	0	282	23 ⁵	0	6
Total	323	32	8	363	25	1	11

This total includes those samples that were submitted with incomplete or missing DU exposure assessment forms.

The Services continue their efforts to clarify the DU exposure classification for these Service members.

The analytical results for 6 of the 10 uncategorized Navy/Marine Service members are pending.

Analytical results for only 4 of the 8 AF Service members have been received. All were less than 50 ng/gm creatinine, and DU was not detected in any of the 4 samples.

Only 1 of the 2 with elevated total uranium (>50 ng/L urine) has been confirmed; the other is pending.

None of the 23 with elevated total uranium (>50 ng/L urine) has been confirmed; all are pending.

Service Summary Operation Iraqi Freedom Depleted Uranium (DU) Bioassay Results

Cumulative Totals

June 1, 2003 – March 31, 2005

Level	Army	Navy/ Marines	Air Force	Total	Elevated Total Uranium	Detectable DU	Retained Fragments or Fragment- Type Injury
I	175	41	2 ²	218	8 ^{2,4}	6 ²	12
II	223	203	7	433	13	0	1 ⁷
III	187	22	7	216 ³	2	0	6 ⁸
Uncat¹	1093	10	0	1103	113 ⁵	1 ⁶	28
Total	1678	276	16	1970	136	7	47

This total includes those samples that were submitted with incomplete or missing DU exposure assessment forms.

The Services continue their efforts to clarify the DU exposure classification for these servicemembers.

One Level I AF Service member had a marginally elevated total uranium and possible DU detection. A small fragment removed from his eye lid was positive for DU. His confirmatory results are pending.

This figure represents only the number of Level III personnel who received a bioassay; bioassays are optional for Level III (incidental) exposures.

Only 4 of the 8 with elevated total uranium (>50 ng/L) results have been confirmed with a repeat test; the others are pending.

This total includes the 23 soldiers reported in this reporting period. Initial elevated total uranium results (>50 ng/L) have not been confirmed with a repeat test; all are pending.

This individual now separated from the Army and living in Germany, submitted a spot urine sample and no exposure questionnaire; the Army is attempting to contact the individual and complete the exposure assessment.

The Level II Service member entered a DU-impacted vehicle and got two “splinters,” which were removed and analyzed. They were not DU. Fragments from Level III Service members have been analyzed for many reasons, e.g., such as to ensure DU residues were not used in an improvised explosive device.